

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/518,184  
Source: PCF  
Date Processed by STIC: 12-28-09

***ENTERED***



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/518,184

DATE: 12/28/2004

TIME: 11:53:52

Input Set : A:\3057US0P.SEQ.txt

Output Set: N:\CRF4\12282004\J518184.raw

3 <110> APPLICANT: WATANABE, TATSUYA  
 4 INAZUKA, MASAKAZU  
 6 <120> TITLE OF INVENTION: Prophylactic/therapeutic agents for bone or joint diseases  
 8 <130> FILE REFERENCE: 3057 US0P  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/518,184  
 C--> 11 <141> CURRENT FILING DATE: 2004-12-16  
 13 <150> PRIOR APPLICATION NUMBER: PCT/JP03/007741  
 W--> 14 <151> PRIOR FILING DATE: 2003-6-18  
 16 <150> PRIOR APPLICATION NUMBER: JP2002-178715  
 W--> 17 <151> PRIOR FILING DATE: 2002-6-19  
 19 <160> NUMBER OF SEQ ID NOS: 6  
 21 <210> SEQ ID NO: 1  
 22 <211> LENGTH: 871  
 23 <212> TYPE: PRT  
 24 <213> ORGANISM: Homo sapiens  
 26 <40> SEQUENCE: 1  
 27 Met Lys Tyr Ser Cys Cys Ala Leu Val Leu Ala Val Leu Gly Thr Glu  
 28 5 10 15  
 29 Leu Leu Gly Ser Leu Cys Ser Thr Val Arg Ser Pro Arg Phe Arg Gly  
 30 20 25 30  
 31 Arg Ile Gln Gln Glu Arg Lys Asn Ile Arg Pro Asn Ile Ile Leu Val  
 32 35 40 45  
 33 Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser Leu Gln Val Met Asn  
 34 50 55 60  
 35 Lys Thr Arg Lys Ile Met Glu His Gly Gly Ala Thr Phe Ile Asn Ala  
 36 65 70 75 80  
 37 Phe Val Thr Thr Pro Met Cys Cys Pro Ser Arg Ser Ser Met Leu Thr  
 38 85 90 95  
 39 Gly Lys Tyr Val His Asn His Asn Val Tyr Thr Asn Asn Glu Asn Cys  
 40 100 105 110  
 41 Ser Ser Pro Ser Trp Gln Ala Met His Glu Pro Arg Thr Phe Ala Val  
 42 115 120 125  
 43 Tyr Leu Asn Asn Thr Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu  
 44 130 135 140  
 45 Asn Glu Tyr Asn Gly Ser Tyr Ile Pro Pro Gly Trp Arg Glu Trp Leu  
 46 145 150 155 160  
 47 Gly Leu Ile Lys Asn Ser Arg Phe Tyr Asn Tyr Thr Val Cys Arg Asn  
 48 165 170 175  
 49 Gly Ile Lys Glu Lys His Gly Phe Asp Tyr Ala Lys Asp Tyr Phe Thr  
 50 180 185 190  
 51 Asp Leu Ile Thr Asn Glu Ser Ile Asn Tyr Phe Lys Met Ser Lys Arg  
 52 195 200 205  
 53 Met Tyr Pro His Arg Pro Val Met Met Val Ile Ser His Ala Ala Pro

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54	210	215	220														
55	His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Phe	Ser	Lys	Leu	Tyr	Pro	Asn	
56	225		230					235					240				
57	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	Met	Asp	
58				245			250					255					
59	Lys	His	Trp	Ile	Met	Gln	Tyr	Thr	Gly	Pro	Met	Leu	Pro	Ile	His	Met	
60				260			265					270					
61	Glu	Phe	Thr	Asn	Ile	Leu	Gln	Arg	Lys	Arg	Leu	Gln	Thr	Leu	Met	Ser	
62		275			280							285					
63	Val	Asp	Asp	Ser	Val	Glu	Arg	Leu	Tyr	Asn	Met	Leu	Val	Glu	Thr	Gly	
64		290			295						300						
65	Glu	Leu	Glu	Asn	Thr	Tyr	Ile	Ile	Tyr	Thr	Ala	Asp	His	Gly	Tyr	His	
66	305			310				315					320				
67	Ile	Gly	Gln	Phe	Gly	Leu	Val	Lys	Gly	Lys	Ser	Met	Pro	Tyr	Asp	Phe	
68				325			330					335					
69	Asp	Ile	Arg	Val	Pro	Phe	Phe	Ile	Arg	Gly	Pro	Ser	Val	Glu	Pro	Gly	
70		340			345				350								
71	Ser	Ile	Val	Pro	Gln	Ile	Val	Leu	Asn	Ile	Asp	Leu	Ala	Pro	Thr	Ile	
72		355				360				365							
73	Leu	Asp	Ile	Ala	Gly	Leu	Asp	Thr	Pro	Pro	Asp	Val	Asp	Gly	Lys	Ser	
74		370				375				380							
75	Val	Leu	Lys	Leu	Leu	Asp	Pro	Glu	Lys	Pro	Gly	Asn	Arg	Phe	Arg	Thr	
76	385			390				395					400				
77	Asn	Lys	Lys	Ala	Lys	Ile	Trp	Arg	Asp	Thr	Phe	Leu	Val	Glu	Arg	Gly	
78				405			410					415					
79	Lys	Phe	Leu	Arg	Lys	Lys	Glu	Glu	Ser	Ser	Lys	Asn	Ile	Gln	Gln	Ser	
80		420				425						430					
81	Asn	His	Leu	Pro	Lys	Tyr	Glu	Arg	Val	Lys	Glu	Leu	Cys	Gln	Gln	Ala	
82		435				440						445					
83	Arg	Tyr	Gln	Thr	Ala	Cys	Glu	Gln	Pro	Gly	Gln	Lys	Trp	Gln	Cys	Ile	
84		450			455			460									
85	Glu	Asp	Thr	Ser	Gly	Lys	Leu	Arg	Ile	His	Lys	Cys	Lys	Gly	Pro	Ser	
86	465			470				475					480				
87	Asp	Leu	Leu	Thr	Val	Arg	Gln	Ser	Thr	Arg	Asn	Leu	Tyr	Ala	Arg	Gly	
88				485			490					495					
89	Phe	His	Asp	Lys	Asp	Lys	Glu	Cys	Ser	Cys	Arg	Glu	Ser	Gly	Tyr	Arg	
90		500				505						510					
91	Ala	Ser	Arg	Ser	Gln	Arg	Lys	Ser	Gln	Arg	Gln	Phe	Leu	Arg	Asn	Gln	
92			515			520						525					
93	Gly	Thr	Pro	Lys	Tyr	Lys	Pro	Arg	Phe	Val	His	Thr	Arg	Gln	Thr	Arg	
94		530				535					540						
95	Ser	Leu	Ser	Val	Glu	Phe	Glu	Gly	Glu	Ile	Tyr	Asp	Ile	Asn	Leu	Glu	
96	545				550					555			560				
97	Glu	Glu	Glu	Leu	Gln	Val	Leu	Gln	Pro	Arg	Asn	Ile	Ala	Lys	Arg		
98				565			570					575					
99	His	Asp	Glu	Gly	His	Lys	Gly	Pro	Arg	Asp	Leu	Gln	Ala	Ser	Ser	Gly	
100			580				585					590					
101	Gly	Asn	Arg	Gly	Arg	Met	Leu	Ala	Asp	Ser	Ser	Asn	Ala	Val	Gly	Pro	
102			595			600						605					

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Input Set : A:\3057US0P.SEQ.txt  
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103	Pro	Thr	Thr	Val	Arg	Val	Thr	His	Lys	Cys	Phe	Ile	Leu	Pro	Asn	Asp
104	610						615					620				
105	Ser	Ile	His	Cys	Glu	Arg	Glu	Leu	Tyr	Gln	Ser	Ala	Arg	Ala	Trp	Lys
106	625						630				635				640	
107	Asp	His	Lys	Ala	Tyr	Ile	Asp	Lys	Glu	Ile	Glu	Ala	Leu	Gln	Asp	Lys
108							645				650				655	
109	Ile	Lys	Asn	Leu	Arg	Glu	Val	Arg	Gly	His	Leu	Lys	Arg	Arg	Lys	Pro
110							660				665				670	
111	Glu	Glu	Cys	Ser	Cys	Ser	Lys	Gln	Ser	Tyr	Tyr	Asn	Lys	Glu	Lys	Gly
112							675				680				685	
113	Val	Lys	Lys	Gln	Glu	Lys	Leu	Lys	Ser	His	Leu	His	Pro	Phe	Lys	Glu
114							690				695				700	
115	Ala	Ala	Gln	Glu	Val	Asp	Ser	Lys	Leu	Gln	Leu	Phe	Lys	Glu	Asn	Asn
116	705						710				715				720	
117	Arg	Arg	Arg	Lys	Lys	Glu	Arg	Lys	Glu	Lys	Arg	Arg	Gln	Arg	Lys	Gly
118							725				730				735	
119	Glu	Glu	Cys	Ser	Leu	Pro	Gly	Leu	Thr	Cys	Phe	Thr	His	Asp	Asn	Asn
120							740				745				750	
121	His	Trp	Gln	Thr	Ala	Pro	Phe	Trp	Asn	Leu	Gly	Ser	Phe	Cys	Ala	Cys
122							755				760				765	
123	Thr	Ser	Ser	Asn	Asn	Asn	Thr	Tyr	Trp	Cys	Leu	Arg	Thr	Val	Asn	Glu
124							770				775				780	
125	Thr	His	Asn	Phe	Leu	Phe	Cys	Glu	Phe	Ala	Thr	Gly	Phe	Leu	Glu	Tyr
126	785						790				795				800	
127	Phe	Asp	Met	Asn	Thr	Asp	Pro	Tyr	Gln	Leu	Thr	Asn	Thr	Val	His	Thr
128							805				810				815	
129	Val	Glu	Arg	Gly	Ile	Leu	Asn	Gln	Leu	His	Val	Gln	Leu	Met	Glu	Leu
130							820				825				830	
131	Arg	Ser	Cys	Gln	Gly	Tyr	Lys	Gln	Cys	Asn	Pro	Arg	Pro	Lys	Asn	Leu
132							835				840				845	
133	Asp	Val	Gly	Asn	Lys	Asp	Gly	Gly	Ser	Tyr	Asp	Leu	His	Arg	Gly	Gln
134							850				855				860	
135	Leu	Trp	Asp	Gly	Trp	Glu	Gly									
136	865						870									
138	<210>	SEQ ID NO:	2													
139	<211>	LENGTH:	2613													
140	<212>	TYPE:	DNA													
141	<213>	ORGANISM:	Homo sapiens													
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144	atgaagtatt	cttgctgtgc	tctggtttg	gctgtcctgg	gcacagaatt	gctggaaagc									60	
145	ctctgttcga	ctgtcagatc	cccgagggtc	agaggacgga	tacagcgagga	acgaaaaaaac									120	
146	atccgaccca	acattatttct	tgtgcttacc	gatgatcaag	atgtggagct	gggttcccttg									180	
147	caagtcatga	acaaaacgag	aaagattatg	gaacatgggg	gggccacctt	catcaatgcc									240	
148	tttgtacta	cacccatgtg	ctgcccgtca	cggtcctcca	tgctcaccgg	gaagtatgtg									300	
149	cacaatcaca	atgtctcacac	caacaacgag	aactgcttt	ccccctcg	gcaggccatg									360	
150	catgagcctc	ggacttttgc	tgttatatctt	aacaacactg	gctacagaac	agcctttttt									420	
151	ggaaaatacc	tcaatgaata	taatggcagc	tacatcccc	ctgggtggcg	agaatggctt									480	
152	ggattaatca	agaattctcg	tttctataat	tacactgttt	gtcgcaatgg	catcaaagaa									540	
153	aagcatggat	ttgatttatgc	aaaggactac	ttcacagact	taatcactaa	cgagagcatt									600	

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154 aattacttca	aatgtctaa	gagaatgtat	ccccataggc	ccgttatgat	ggtgatcagc	660
155 cacgctgcgc	cccacggccc	cgaggactca	gccccacagt	tttctaaact	gtaccccaat	720
156 gttcccaac	acataactcc	tagttataac	tatgcaccaa	atatggataa	acactggatt	780
157 atgcagtaca	caggaccaat	gtgcccatt	cacatggaaat	ttacaaacat	tctacagcgc	840
158 aaaaggctcc	agactttgat	gtcagtggat	gattctgtgg	agaggctgta	taacatgctc	900
159 gtggagacgg	gggagctgga	gaatacttac	atcatttaca	ccgcccacca	tggttaccat	960
160 attgggcagt	ttggactggt	caaggggaaa	tccatgccat	atgactttga	tattctgtgt	1020
161 cctttttta	ttcgtggtcc	aagtgttagaa	ccaggatcaa	tagtcccaca	gatcggtctc	1080
162 aacattgact	tggcccccac	gatcctggat	attgctggc	tcgacacacc	tcctgtatgt	1140
163 gacggcaagt	ctgtcctcaa	acttctggac	ccagaaaagc	caggtaacag	gtttcgaaca	1200
164 aacaagaagg	ccaaaatttgc	gcgtgataca	ttccttagtgg	aaagaggca	atttctacgt	1260
165 aagaaggaag	aatccagcaa	gaatatccaa	cagtcaaattc	acttgcacca	atatgaacgg	1320
166 gtcaaagaac	tatgccagca	ggccaggtac	cagacagcct	gtgaacaacc	ggggcagaag	1380
167 tggcaatgca	ttgaggatac	atctggcaag	cttgcatttc	acaagtgtaa	aggacccagt	1440
168 gacctgctca	cagtccggca	gagcacgogg	aacctctacg	ctcgccgctt	ccatgacaaa	1500
169 gacaaagagt	gcagttgttag	ggagtctgtt	taccgtgcca	gcagaagcca	aagaaagagt	1560
170 caacggcaat	tcttgagaaa	ccaggggact	ccaaagtaca	agcccagatt	tgtccatact	1620
171 cggcagacac	gttcottgtc	cgtcgaattt	gaaggtgaaa	tatatgacat	aaatctggaa	1680
172 gaagaagaag	aattgcaagt	tttgcaccca	agaaacatttgc	ctaagcgtca	tgatgaaggc	1740
173 cacaagggggc	caagagatct	ccaggcttcc	agtgggtggca	acagggggcag	gatgctggca	1800
174 gatagcagca	acgcctgtgg	cccaccttacc	actgtccgag	tgacacacaa	gtgttttatt	1860
175 ctcccataatg	actctatcca	tttgtgagaga	gaactgttacc	aatcggccag	agcgttggaa	1920
176 gaccataagg	catacattga	caaagagatt	gaagctctgc	aagataaaat	taagaatttgc	1980
177 agagaagtga	gaggacatct	gaagagaagg	aagcttgagg	aatgttagct	cagtaaacaa	2040
178 agcttattaca	ataaaagagaa	aggtgtaaaa	aagcaagaga	aattaaagag	ccatcttcac	2100
179 ccattcaagg	aggctgctca	ggaagtagat	agcaactgc	aacttttcaa	ggagaacaac	2160
180 cgtaggagga	agaaggagag	gaaggagaag	agacggcaga	ggaaggggaa	agagtgcagc	2220
181 ctgcctggcc	tcacttgctt	cacgcatttgc	aacaaccact	ggcagacagc	cccgttctgg	2280
182 aacctggat	ctttctgtgc	ttgcacgat	tctaaacataa	acacctacttgc	gtgttttgcgt	2340
183 acagttaatg	agacgcataa	ttttcttttc	tgtgagtttgc	ctactggctt	tttggagttat	2400
184 ttgtatataatg	atacagatcc	ttatcagctc	acaatatacag	tgcacacggt	agaacgaggc	2460
185 attttgaatc	agctacacgt	acaactaatg	gagctcagaa	gctgtcaagg	atataaggcag	2520
186 tgcaacccaa	gacctaagaa	tcttgatgtt	ggaaataaaag	atggaggaag	ctatgaccta	2580
187 cacagaggac	agttatggaa	tggatggaa	ggt			2613

189 <210> SEQ ID NO: 3

190 <211> LENGTH: 39

191 <212> TYPE: DNA

192 <213> ORGANISM: Artificial Sequence

194 <220> FEATURE:

195 <223> OTHER INFORMATION: Primer

197 <400> SEQUENCE: 3

198 tggaccaaat acaatgaagt attcttgctg tgctctggat

39

200 <210> SEQ ID NO: 4

201 <211> LENGTH: 31

202 <212> TYPE: DNA

203 <213> ORGANISM: Artificial Sequence

205 <220> FEATURE:

206 <223> OTHER INFORMATION: Primer

208 <400> SEQUENCE: 4

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209 ggcaaggtca aatgagggtgt tttcccaacc t	31
211 <210> SEQ ID NO: 5	
212 <211> LENGTH: 20	
213 <212> TYPE: DNA	
214 <213> ORGANISM: Artificial Sequence	
216 <220> FEATURE:	
217 <223> OTHER INFORMATION: Primer	
219 <400> SEQUENCE: 5	
220 gagagaggcg aatggAACGA	20
222 <210> SEQ ID NO: 6	
223 <211> LENGTH: 19	
224 <212> TYPE: DNA	
225 <213> ORGANISM: Artificial Sequence	
227 <220> FEATURE:	
228 <223> OTHER INFORMATION: Primer	
W--> 229 <400> SEQUENCE: 6	
230 cgcaccaggg agctgtatct	19

VERIFICATION SUMMARY

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Input Set : A:\3057US0P.SEQ.txt

Output Set: N:\CRF4\12282004\J518184.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD  
L:17 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD  
L:229 M:283 W: Missing Blank Line separator, <400> field identifier